State Energy Strategy Update/2002 Biennial Report

Background and Issues

Advisory Committee Meeting #1

June 21, 2002

Outline

- **Focus**
- **Legislative Direction**
- **Washington's Unique Characteristics**
- **1993 State Energy Strategy**
- **Assumptions**
- **Risks**
- **Risk Mitigation**
- **Approach**
- **Questions for Group Discussion**

Focus

- **Electricity Issues**
- **Natural Gas Issues Related to Electricity**
- **Executive Branch Document**
- **Issues Specific to Washington State (don't duplicate the Power Council's regional plan)**
- **Durable Long-Term Policies**
- **A Few Short Term Actions**
- **Building on Existing Policies ('93 SES) and Legislation (HB 2247)**

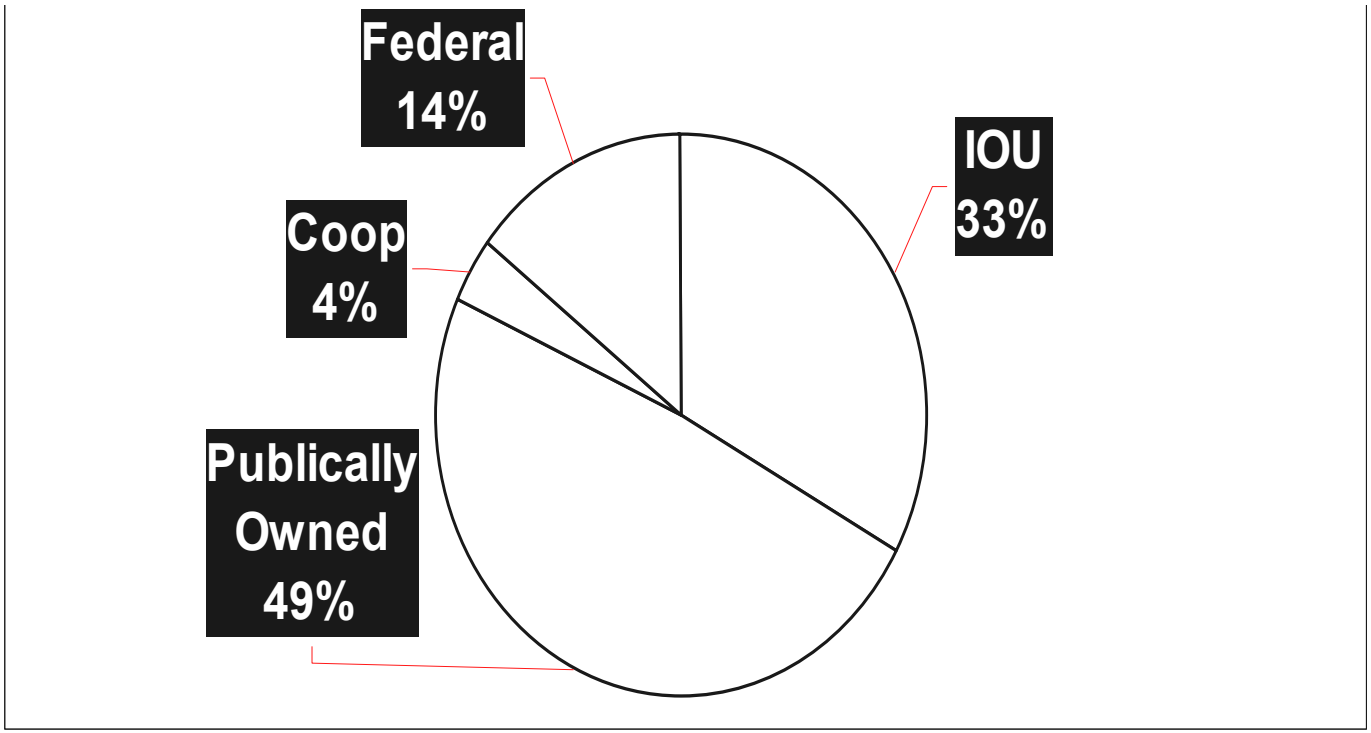
Directions from Proposed Legislation (SHB 2637)

- **ID methods to create new electricity capacity**
- **ID obstacles to and incentives for new generation and transmission (in a hydro environment)**
- **ID methods to encourage demand mgmt, distributed gen., energy efficiency, conservation**
- **Improve coordination with regional planning**
- **ID strategies and options to reduce ghg emissions from state government activities**
- **Member groups for advisory committee**

Electricity in Washington

- **60+ Utilities**
  - **3 IOUs of varying sizes**
  - **About 60 Consumer Owned of varying sizes**
  - **Overall Load: 53% Public,. 33% IOU, 14% Federal**
  - **7 Aluminum Smelters**
- **BPA Supplies about half the power to the State**
- **All of the IOUs and many of the publics have large resources of their own**
- **About 70% Hydro**

Washington State Electricity Sales by Ownership Class (2000)



kWh sales

Uniqueness of WA

- **CA, OR, ID, MT, NV, UT**
  - **75% or more IOU service**
  - **1-3 Dominant Utilities**
  - **Commission plays dominant role in electricity regulation and policy**
  - **Transmission is mostly owned by IOUs**
- **WA**
  - **33% IOU**
  - **Decentralized**
  - **Commission plays important but not dominant role**
  - **Transmission is mostly (80%) owned by BPA**

Implications

- **In other states, electricity policy means IOU oversight; in WA, electricity policy means bargaining among electric utilities**
- **In other states, utilities develop their own resources; in WA, BPA's role in resource development has been dominant but this may change**
- **In other states, generation resources are tied to utilities own customers loads; in WA, some utilities have resources solely to sell on the market.**
- **RTOs may make more sense for other states**

WASHINGTON'S

ENERGY STRATEGY

WASHINGTON'S ENERGY STRATEGY

Guiding Principles

1. Implement all cost-effective energy conservation.

2. Implement cost-effective energy policies that minimize environmental damage.

3. Use sound scientific data and analysis as the basis for energy policy.

4. Foster mutually beneficial relationships with nearby states and provinces to help accomplish Washington's energy goals.

5. Use market forces—including fair competition and consumer choices—where possible, along with clear, fair rules and laws to accomplish our objectives.

6. Respond creatively and prospectively to political, social, and environmental changes effecting the use and supply of energy.

WASHINGTON'S ENERGY STRATEGY

Guiding Principles (continued)

7. **Respond creatively and prospectively to political, social, and environmental changes affecting the use and supply of energy.**

8. **Maintain programs that ensure all citizens, including those on small incomes, have access to such basic services as heating, lighting, and mobility.**

9. **Lead by example with energy efficiency in state and local government operations.**

10. **Cultivate diversity in energy supply, including new technologies and renewable resources such as wind, geothermal, hydro, biomass, and solar technologies, where a modest initial investment can help develop cost-effective resources.**

11. **Ensure broad participation by the state's citizens in the Strategy and provide information and education to enhance understanding.**

1993 SES
Electricity-Related Recommendations

1. Natural gas planning
2. Conservation in use of electricity
3. Improved system efficiencies
4. Renewable energy sources
5. Low income assistance
6. Energy education
7. Carbon dioxide and global warming
8. Environmental regulation and energy decision making
9. Siting energy facilities

Assumptions

- **Retail restructuring will not occur in the foreseeable future**
- **Regional electricity supplies appear adequate to 2006 (NWPPC, BPA)**
- **Plants under construction will be finished**
- **Learned important lessons from 2000/2001 (markets, demand, risk, conservation, economic impacts)**

Assumptions

- **Wholesale market**
  - **Predominance of IPPs, but not exclusive, some utility role expected**
  - **RTO question will not be settled**
  - **Possibility of greater utility autonomy vis-à-vis BPA (Slice of the System proposal) multiple utility decisions**
  - **Continued market volatility (how much?, how long?)**
- **DSI loads will return (how much? when?)**
- **Continued federal/state tension**

What Role **Can** the State of Washington Have in Shaping Our Electricity Future ?

BPA

Washington Legislature

UTC

EFSEC

Governor

Publically-Owned Utilities

G A

NWPPC

Congress

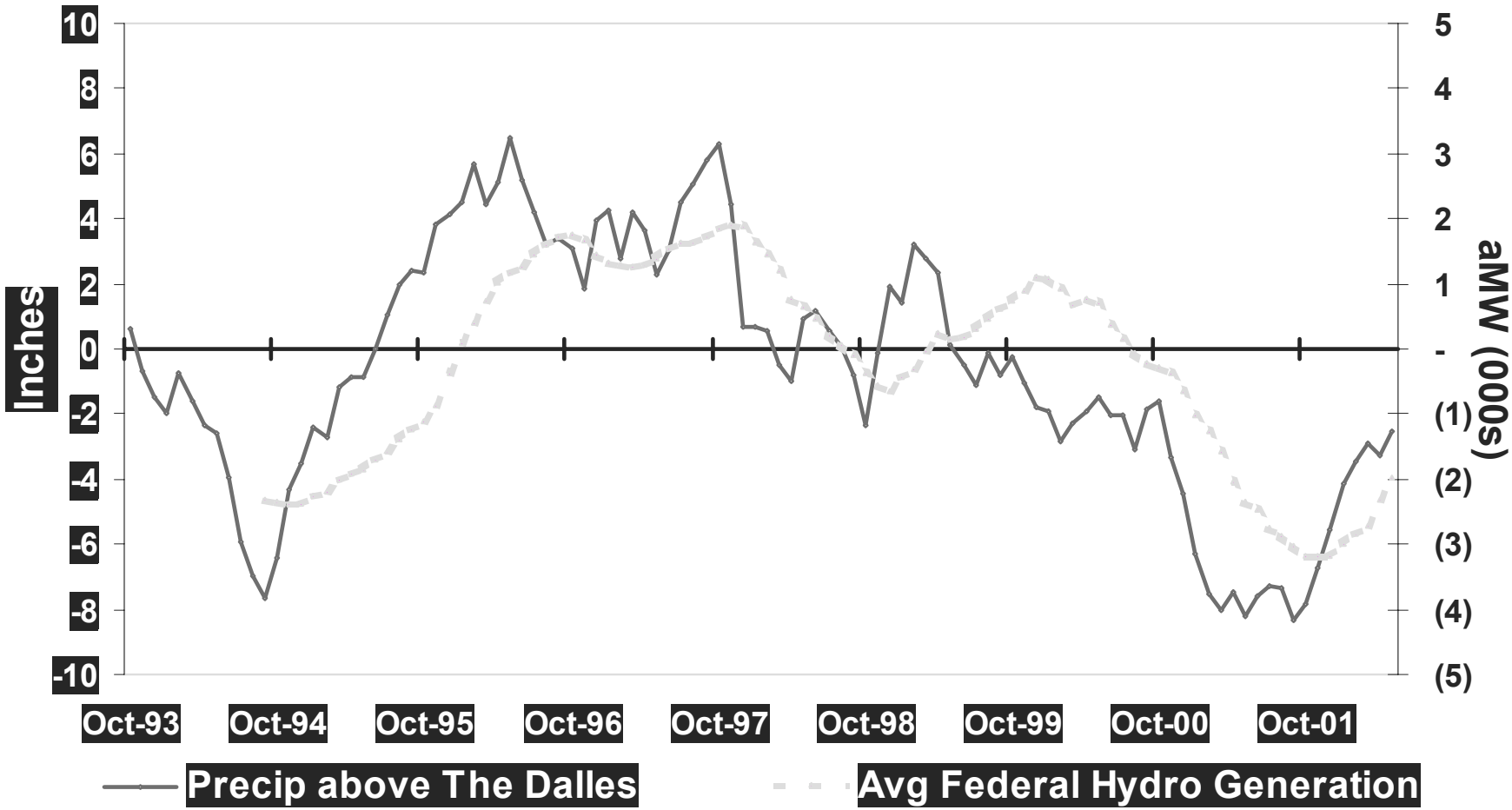
FERC

What Role **Should** Washington State Play?

What Risks Do We Face?

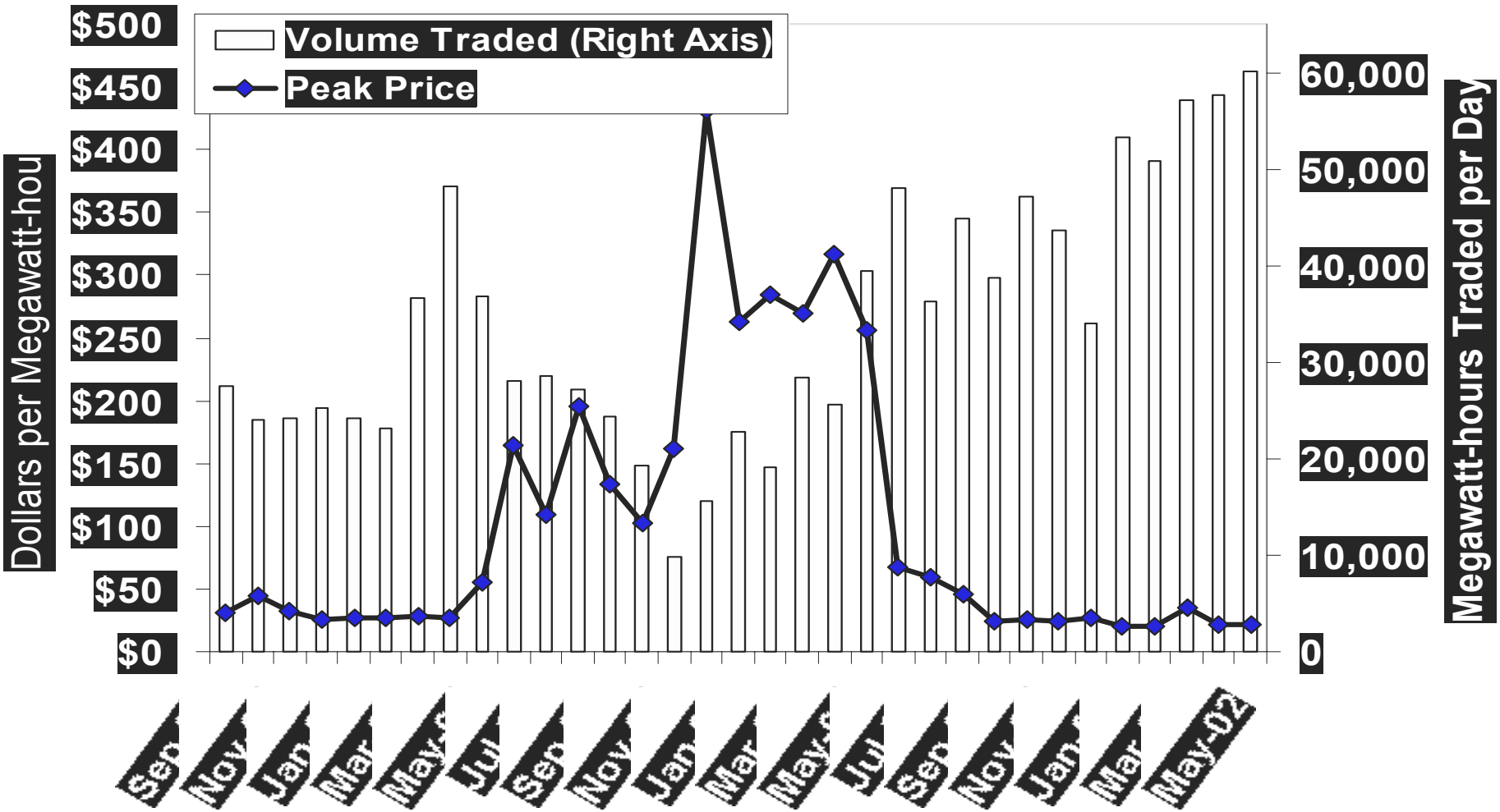
- **Supply Inadequacy (Energy, Capacity)**
- **High Electricity Prices**
- **Volatile Electricity/Natural Gas Prices**
- **Transmission Inadequacy**
- **Hydro Variability**
- **Reliance on Natural Gas Generation**
- **Environmental Impacts (GHG, Air Quality, Water)**
- **Mixed Market-Signals/Environment**
- **Loss of State/Regional Control/Decision Making**

Variations in NW Precipitation and Hydro Generation

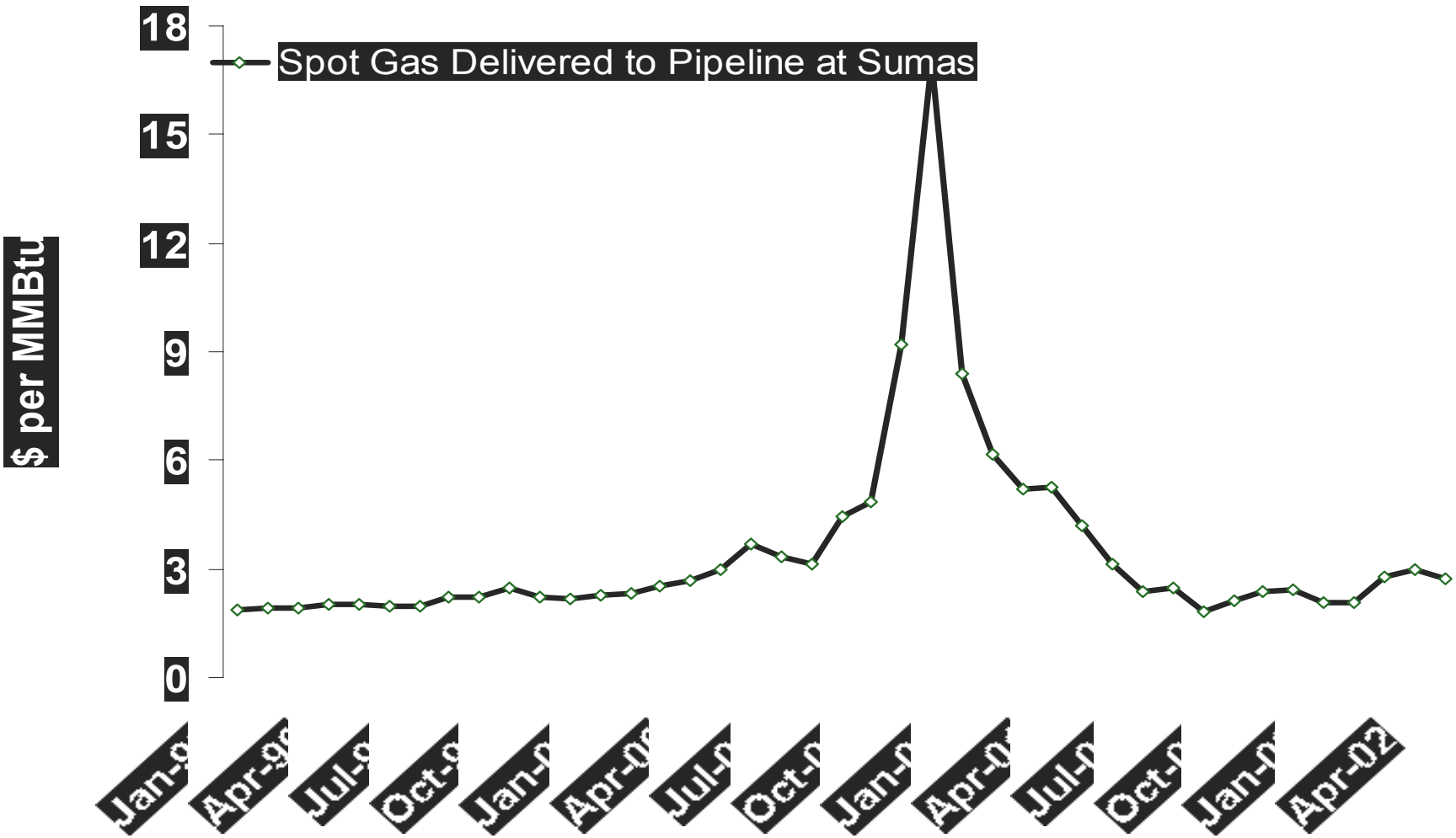


Power Prices at Mid-Columbia

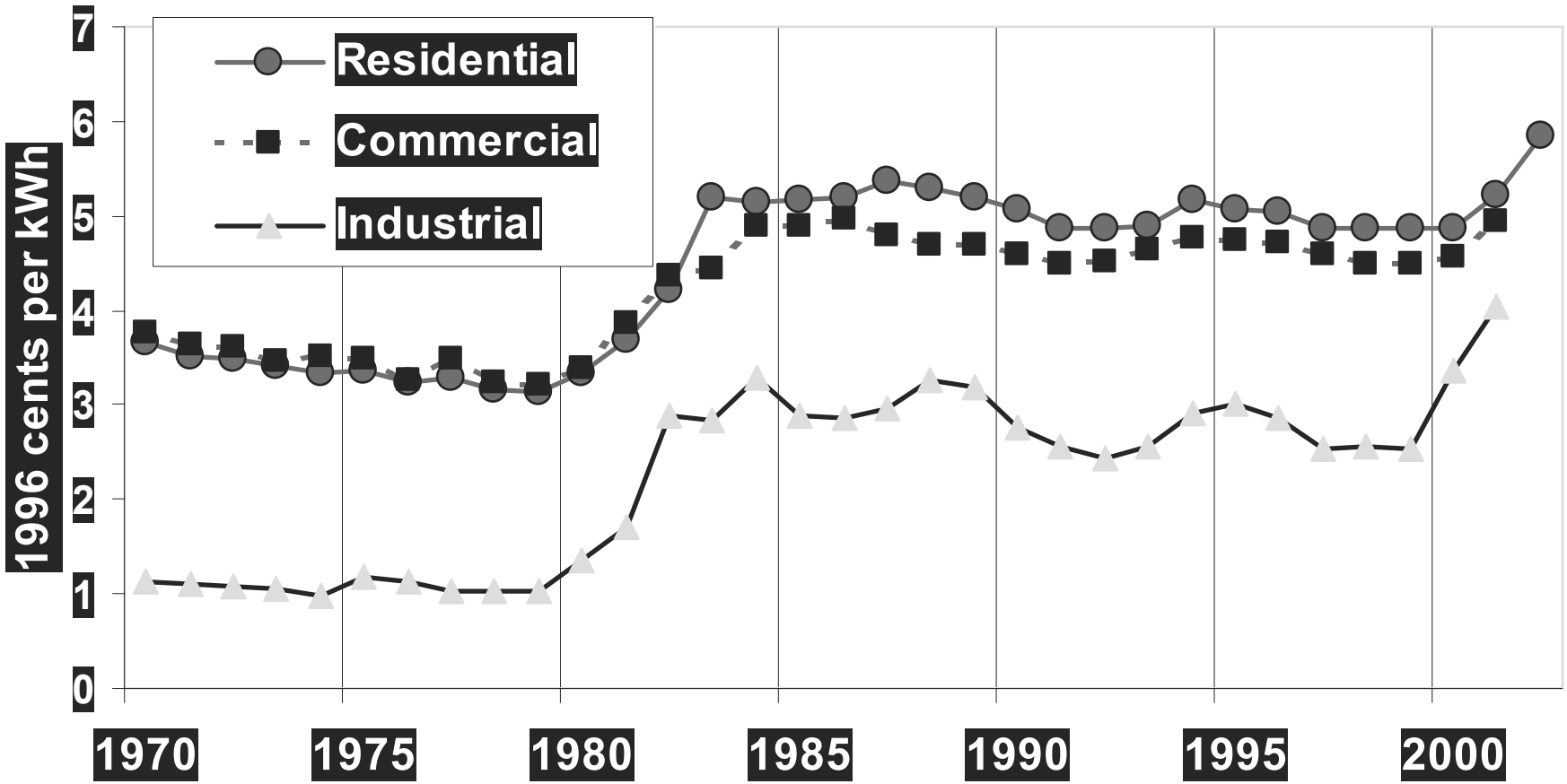
Monthly Volume-Weighted Averages



Monthly Natural Gas Spot Price

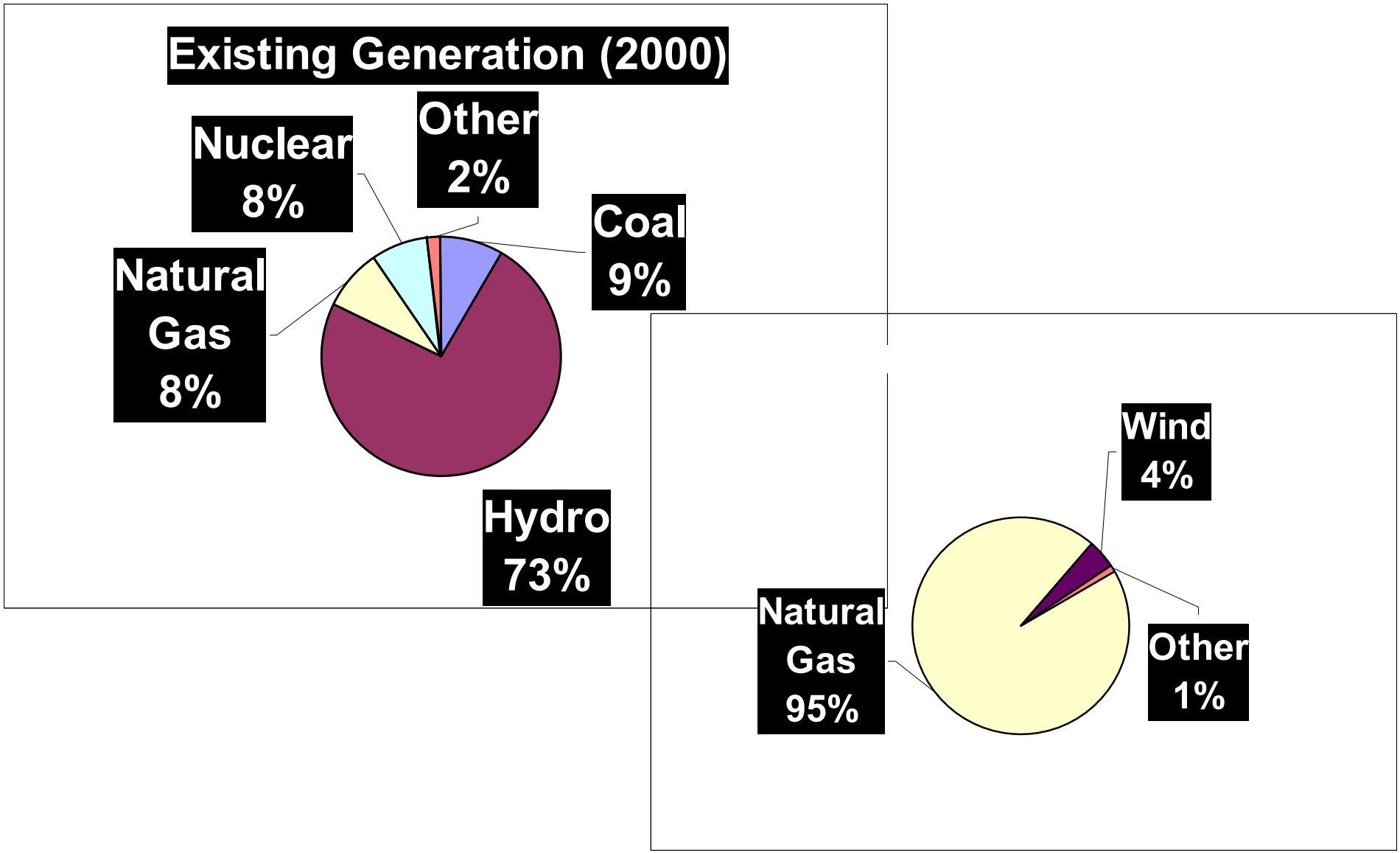


Electricity Prices by Sector

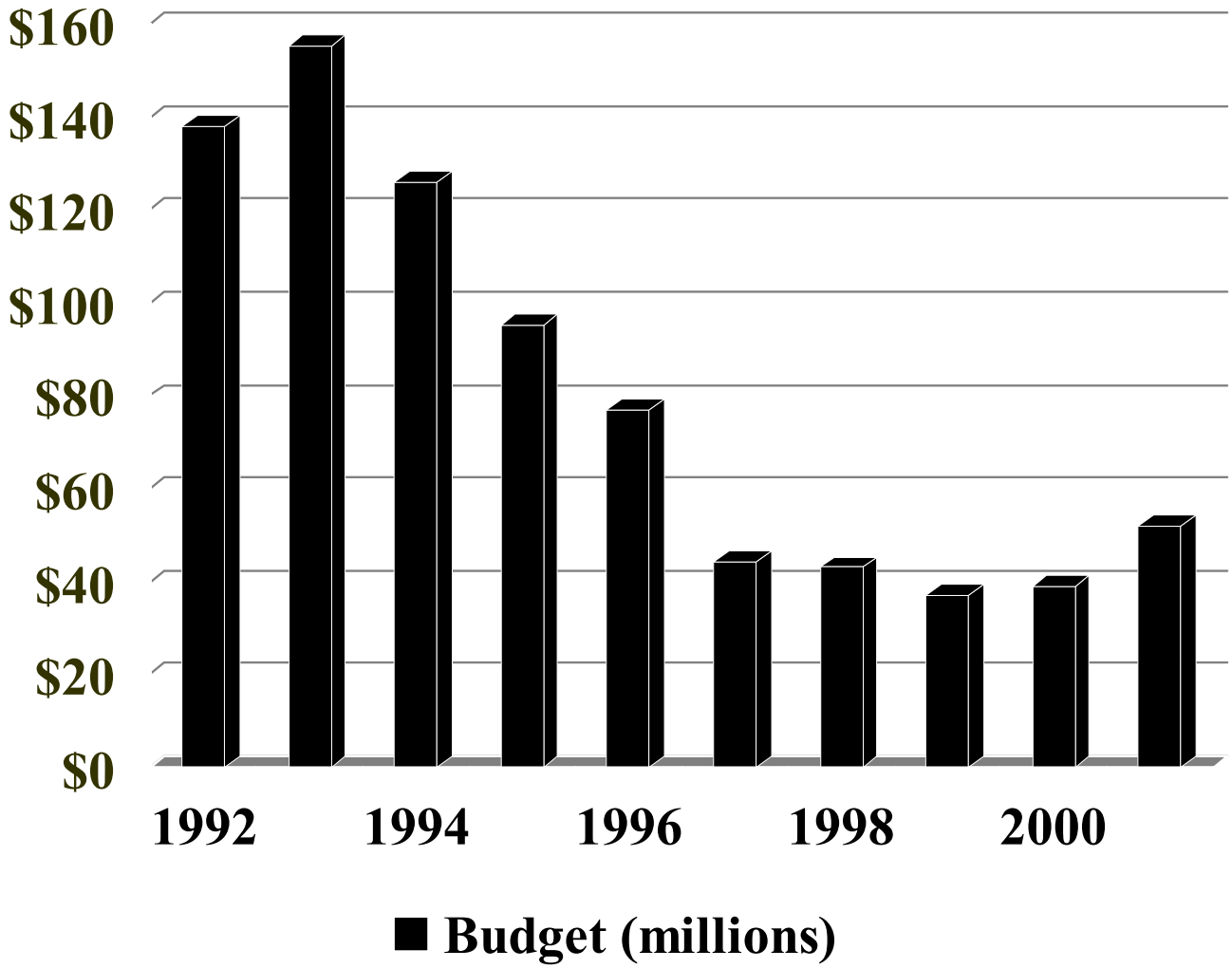


2001 Estimated Values

Washington Generation



WA Electric Utilities' Annual Investments in Efficiency Programs



What are the Best Ways to Mitigate Risk?

- **Supply Diversity**
- **Demand Flexibility**
- **State Policy Actions**
- **Market Rules**
- **Market Incentives**
- **Institutional Structures**
- **Influence on Regional/National Policies**

Long Term
Short Term

- Long Term – update the SES to reflect changes in the electricity landscape
  - Guidance for executive action
  - Direction for legislative action
  - Focus for what we need to track
  - Adaptable to changing circumstances
- Short Term – one to three key short term actions – legislation, executive branch

Questions for the Committee

- **What changes to basic assumptions?**
- **What changes to guiding principles?**
- **What are the key short term issues ?**
- **What are the key long term issues?**

Draft Report Outline

- **Succinct Document – 20 to 30 pages**
- **Section 1 – An Update on Washington's Electricity Landscape**
- **Section 2 – State Institutional Structures Related to Electricity**
- **Section 3 - Goals/Options/Scenarios**
- **Section 4 - Recommendations**
- **Appendices (e.g. quantitative indicators)**

Analytical/Descriptive Info

- **Biennial Energy Indicators Update (quantitative)**
- **Short-Term Electricity Indicators (quantitative)**
- **Electricity/Economy Relationships**
- **GHG Emissions/State Inventory**
- **Update of Chapter 1 Biennial Report (Descriptive)**
- **Update of 6560 Study (Options)**
- **Lessons from 2000/2001 (Readiness Committee, NWPPC, CEC)**
- **Advisory Committee Knowledge and Assistance**

Discussion of Key Issues